

Title (en)

Lentiviral vector particles resistant to complement inactivation

Title (de)

Gegenüber Komplement-Inaktivierung resistente Lentivirusvektorpartikel

Title (fr)

Particules de vecteur de lentivirus pour l'inactivation de complément

Publication

EP 2339010 B1 20170412 (EN)

Application

EP 10012126 A 20030429

Priority

- EP 03726520 A 20030429
- US 37676702 P 20020501

Abstract (en)

[origin: US2003207445A1] The present invention provides a retroviral gene delivery system that resists complement inactivation through the incorporation of a complement regulatory protein into retroviral particles. In particular, the present invention provides a lentiviral packaging system comprising at least two vectors: a first vector which comprises a nucleotide sequence comprising a gag, a pol, or gag and pol genes; and a second vector which comprises a nucleotide sequence comprising a gene that encodes a complement regulatory protein (CRP) and, optionally, a gene that encodes a heterologous or functionally modified envelope protein. The genes encoding a heterologous or functionally modified envelope protein and a CRP are provided either together in a second nucleotide sequence, or separately in second and third nucleotide sequences. Producer cells comprising the packaging constructs of the present invention and a transgene can be used to produce recombinant retroviral particles for transgene delivery.

IPC 8 full level

C12N 15/86 (2006.01); **C12N 15/867** (2006.01)

CPC (source: EP US)

C12N 15/86 (2013.01 - EP US); **C12N 2740/16043** (2013.01 - EP US); **C12N 2740/16045** (2013.01 - EP US);
C12N 2740/16052 (2013.01 - EP US); **C12N 2810/60** (2013.01 - EP US); **C12N 2810/6081** (2013.01 - EP US)

Citation (examination)

SAIFUDDIN M ET AL: "Human immunodeficiency virus type 1 incorporates both glycosyl phosphatidylinositol-anchored CD55 and CD59 and integral membrane CD46 at levels that protect from complement-mediated destruction", JOURNAL OF GENERAL VIROLOGY, SOCIETY FOR GENERAL MICROBIOLOGY, SPENCERS WOOD, GB, vol. 78, no. 8, 1 January 1997 (1997-01-01), pages 1907 - 1911, XP002154763, ISSN: 0022-1317

Cited by

US9458231B2; US10017565B2; US10912824B2; US11957747B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

US 2003207445 A1 20031106; **US 6790641 B2 20040914**; AU 2003228751 A1 20031117; AU 2003228751 A8 20031117;
EP 1497437 A2 20050119; EP 1497437 A4 20051116; EP 2339010 A2 20110629; EP 2339010 A3 20111026; EP 2339010 B1 20170412;
ES 2627445 T3 20170728; WO 03093417 A2 20031113; WO 03093417 A3 20041028

DOCDB simple family (application)

US 42532303 A 20030429; AU 2003228751 A 20030429; EP 03726520 A 20030429; EP 10012126 A 20030429; ES 10012126 T 20030429;
US 0313271 W 20030429